

**To:** Hestmark, Martin[Hestmark.Martin@epa.gov]  
**Cc:** Edwards, Kristine[Edwards.Kristine@epa.gov]; Nelson, Shawna[Nelson.Shawna@epa.gov]; Clevenger, Debra[Clevenger.Debra@epa.gov]  
**From:** Vranka, Joe  
**Sent:** Mon 8/24/2015 9:49:47 PM  
**Subject:** Re: Bullion adit removal action - sequence of events

Hi, Martin:

You are all set for the Bullion Mine site tour tomorrow. Kris is coordinating with Montana DEQ. If you still need a separate meeting with George, I think he has some availability on Wednesday. You are welcome to use my office since I'm camping on the Henry's Fork of the Snake River this week (see attached photo). Kris Edwards is acting for me. Please let her or Shawna Nelson know if you need any additional meetings set up - either with George or with Montana Office staff.

Thanks and have a great trip!

Joe

(This photo is minus the moose in the same spot yesterday evening.)



Sent from my iPhone

On Aug 24, 2015, at 10:44 AM, Hestmark, Martin <[Hestmark.Martin@epa.gov](mailto:Hestmark.Martin@epa.gov)> wrote:

Great. See you tomorrow. Will you let George know?

Sent from my iPhone

On Aug 24, 2015, at 10:15 AM, Edwards, Kristine <[Edwards.Kristine@epa.gov](mailto:Edwards.Kristine@epa.gov)> wrote:

Tuesday afternoon is fine with me. I emailed the other RPMs here that you would be available to discuss the Gold King probably sometime Wednesday.

Kristine Edwards

Remedial Project Manager

Region 8 Montana Office

10 West 15th Street, Suite 3200

Helena, MT 59626

406-457-5021

**From:** Hestmark, Martin

**Sent:** Monday, August 24, 2015 10:14 AM

**To:** Vranka, Joe; Edwards, Kristine

**Subject:** Re: Bullion adit removal action - sequence of events

Tuesday with George going to the bullion could work for me if it also works for Kris. I think I have a call tuesdaymorning on the Standard mine. Wednesday could be free for drop ins.

Sent from my iPhone

On Aug 21, 2015, at 1:24 PM, Vranka, Joe <[vranka.joe@epa.gov](mailto:vranka.joe@epa.gov)> wrote:

Hi, Martin:

George Mathieus called me after he spoke to you and indicated what times he is available.

Tuesday: 11 a.m. – noon or 2 – 5 p.m.

Wednesday: 10 a.m. – noon or 3 – 5 p.m.

George said that he would be interested in going along on the visit to the Bullion Mine, and said that he might be able to make Tuesday afternoon work. Do you want to meet with George Tuesday morning from 11 a.m. to noon, and tour the Bullion Mine site in the afternoon? I can also schedule a meeting with staff either earlier Tuesday morning or sometime Wednesday if you prefer. Let me know what you think.

Thank you,

Joe

**From:** Hestmark, Martin

**Sent:** Friday, August 21, 2015 11:42 AM

**To:** Edwards, Kristine; Vranka, Joe; Murray, Bill

**Cc:** Nguyen, Duc; Dennis Smith ([Dennis.Smith2@CH2M.com](mailto:Dennis.Smith2@CH2M.com)); Lensink, Andy

**Subject:** RE: Bullion adit removal action - sequence of events

Thanks Kristine! I am looking forward to actually seeing it with you and not just knowing it through the Crystal and Bullion Decisions. See you tuesday. Joe is trying to coordinate with MDEQ so that I can meet with Tom L and George Mathiues and then be available for staff so I don't know what your schedule looks like or mine but will try to be nimble.

**From:** Edwards, Kristine

**Sent:** Thursday, August 20, 2015 3:12 PM

**To:** Vranka, Joe; Murray, Bill; Hestmark, Martin

**Cc:** Nguyen, Duc; Dennis Smith ([Dennis.Smith2@CH2M.com](mailto:Dennis.Smith2@CH2M.com)); Lensink, Andy  
**Subject:** Bullion adit removal action - sequence of events

At Joe's request, I am providing the sequencing of activities that will occur prior to opening the adit at the Bullion.

1. We will continue to draw down the water in the well 300' upslope of the collapsed adit. We believe we've drawn down more than half of the adit volume to date, and the seeps in the slope above the adit are starting to dry up slightly and the water discharging from the collapsed portal is significantly lower than when we started – a clear indication that the volume flooding the mine workings is significantly lower. The water is pumped to the treatment pond where it is mixed with caustic and the pH is being elevated to approximately pH 7, then discharged to a rock lined channel that leads to Jill Creek.
2. The treatment pond will be maintained and plastic sheeting will be placed on the downslope face to prevent erosion in the event of a significant rainfall event. The integrity of the treatment pond is checked daily.
3. Once all of the AMD in the adit has been pumped down as far as possible, the crew will pump almost all of the treated water in the pond out to provide sufficient freeboard prior to opening the adit.
4. A smaller pond/retention area will be dug below the adit portal and a bermed channel will be placed that directs any flow from the adit to the first pond, and then to the existing treatment pond.
5. About halfway between the well and the adit portal, the crew will excavate carefully down to the adit ceiling and will pump out any remaining sludges in the adit behind the debris plug.
6. After the sludges and contaminated water have been removed to the greatest degree possible, the adit portal will be excavated until we reach competent bedrock.
7. A 24" pipe will then be installed in the adit with a small bulkhead to capture and direct the ongoing adit flow into the rock lined channel. We may need to treat the adit discharge in the treatment pond for a while depending on the amount of iron oxides in the flow. Once the flow has stabilized, however, the adit pipe will be directed to the rock lined channel which connects to Jill Creek. This water will flow untreated until remedial funding is provided and a passive treatment system can be installed. The free flowing condition is required to assure that water does

not build up again until we obtain remedial funding and implement an RA. If remedial funds are provided, we can begin construction of the passive treatment system in 2016 or 2017.

Let me know if you have any questions, comments, or concerns. I would also appreciate it if you could provide written approval of the approach described.

Thanks, Kris

Kristine Edwards

Remedial Project Manager

Region 8 Montana Office

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Helena, MT 59626

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